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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
CHEUNG, WILLIAM K	

ART UNIT	PAPER NUMBER
1713	

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/831,600	KIVELA ET AL.	
	Examiner	Art Unit	
	William K. Cheung	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4,6-25 and 29-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,4,6-25 and 29-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. In view of amendment filed July 17, 2006, new claims 30-31 have been added. Claims 1, 3, 4, 6-25, 29-31 are pending.

2. In view of argument filed July 17, 2006, the objection of Claims 1 and 9 due to minor informalities is withdrawn.

3. Regarding applicants' request for a phone interview, the examiner has contacted applicants' attorney, Mr. Robert E. Goozner (Reg. No. 42,593) on August 21, 2006 for a phone interview. However, Mr. Goozner was not available for interview at the time. Mr. Goozner was advised that he is welcome to call the examiner at any time during the business hours.

Specification

4. The specification (page 5, line 32) is objected because it is making a reference to a claim that has been canceled.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 13, 14, 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Bernier et al. (US 5,834,571).

The invention of claim 1 relates to a ***method of producing a polymer*** *in a* ***continuously operated gas phase reactor,*** *comprising:*

polymerizing at least one monomer *in a bed containing active catalyst formed by catalyst and polymer particles suspended in a fluid, said bed defining a fluidized bed level in said reactor,*

continuously withdrawing polymer powder *from the reactor;*

adjusting a discharge rate *of the polymer powder so as to maintain a constant bed level during polymerization; and*

separately recovering particle agglomerates *from the reactor by discontinuously withdrawing the particle agglomerates.*

The invention of claims 13 relates to a ***method of producing a polymer*** *in a* ***continuously operated gas phase reactor*** *comprising;*

polymerizing at least one monomer *in a bed containing active catalyst formed by catalyst and polymer particles suspended in a fluid, said bed defining a fluidized bed level in said reactor,*

continuously withdrawing polymer powder *from the reactor;*

adjusting a discharge rate of the polymer powder *so as to maintain a constant bed level during polymerization; and*

withdrawing particle agglomerates *from the reactor through a* ***discharge line with a discontinuously operated discharge valve;***

wherein the ***discharge rate of the polymer powder*** *is adjusted by using a continuously operated control valve, and the operation of the control valve is adjusted by using a control signal obtained from a bed level controller.*

The invention of claim 14 relates to a ***method of discharging polymer from a continuously operated gas phase reactor****, wherein at least one monomer is polymerized in a bed containing active catalyst formed by catalyst and polymer particles suspended in a fluid, said bed defining a fluidized bed level in said reactor, comprising:*

continuously withdrawing polymer powder *from the reactor;*

feeding the withdrawn polymer powder into a collecting vessel*, wherein* ***lumps are separated from finely-divided polymer powder*** *and* ***at least a part of the gas is separated from the solid material;***

recovering the lumps*; and*

adjusting a discharge rate of the polymer powder *so as to maintain a constant bed level during polymerization, wherein the* ***discharge rate of the polymer*** *powder is adjusted by using a continuously operated control valve, and the operation of the control valve is adjusted by using a control signal obtained from a bed level controller.*

The invention of claim 29 relates to a ***method of producing a polymer*** *in a* ***continuously operated gas phase reactor,*** *comprising:*

polymerizing at least one monomer *in a bed containing active catalyst formed by catalyst and polymer particles suspended in a fluid, said bed defining a fluidized bed level in said reactor,*

continuously withdrawing polymer powder *from the reactor;*

adjusting a discharge rate of the polymer powder *so as to maintain a constant bed level during polymerization; and*

withdrawing particle agglomerates *from the reactor;*

wherein the discharge rate of the polymer powder is adjusted by using a continuously operated control valve, said operation of the control valve is adjusted by using a control signal obtained from a bed level controller.

Bernier et al. (col. 39, claim 1) claim a method of producing a polymer in a continuously operated gas phase reactor, polymerizing at least one monomer in a bed

containing active catalyst formed by catalyst and polymer particles suspended in a fluid (col. 39, line 25-33), and adjusting a discharge rate (continuously or intermittently) to withdraw polymer product from the reactor (col. 39, 40-42). Since the withdrawal of the polymer product also accompanied with the withdrawal of the fluidized recycle gas, the examiner has a reasonable basis that the claimed "adjusting a discharge rate of the polymer powder so as to maintain a constant bed level during polymerization" is met by Bernier et al. since Bernier et al. (col. 39, line 45-49) clearly indicate that the fluidized bed level is maintained by withdrawing recycle gas from the reactor.

Because the polymer product discharge rate of Bernier et al. can be conducted intermittently from the reactor, and that the agglomerate particles contents withdrawn from the fluidized bed reactor are time dependent, therefore, the examiner has a reasonable basis that the claimed "separately recovering particle agglomerates from the reactor" is inherently possessed in Bernier et al.

Claim Rejections – 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1, 3, 4, 6-25, 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernier et al. (US 5,834,571) for the reasons adequately set forth from paragraph 6 of non-final office action of February 15, 2006, and further in view of de Lorenzo et al. (US 4,535,134).

The invention of claims 1, 3, 4, 6-12, 19-25, 30-31 relates to a ***method of producing a polymer*** *in a* ***continuously operated gas phase reactor*** *comprising:*

polymerizing at least one monomer *in a bed containing active catalyst formed by catalyst and polymer particles suspended in a fluid, said bed defining a fluidized bed level in said reactor,* ***continuously withdrawing polymer powder*** *from the reactor;*

adjusting a discharge rate of the polymer powder *so as to maintain a constant bed level during polymerization; and*

separately recovering particle agglomerates *from the reactor by discontinuously withdrawing the particle agglomerates.*

The invention of claims 14-18, 25 relates to a ***method of discharging polymer from a continuously operated gas phase reactor****, wherein at least one monomer is polymerized in a bed containing active catalyst formed by catalyst and polymer particles suspended in a fluid, said bed defining a fluidized bed level in said reactor, comprising:*

continuously withdrawing polymer powder *from the reactor;*

feeding the withdrawn polymer powder into a collecting vessel*, wherein* ***lumps are separated from finely-divided polymer powder*** *and* ***at least a part of the gas is separated from the solid material****;*

recovering the lumps*; and*

adjusting a discharge rate of the polymer powder *so as to maintain a constant bed level during polymerization, wherein the* ***discharge rate of the polymer*** *powder is adjusted by using a continuously operated control valve, and the operation of the control valve is adjusted by using a control signal obtained from a bed level controller.*

Applicant's arguments filed July 17, 2006 have been fully considered but they are not persuasive. Applicants argue that the amended claim 1 requires the recovering of the particle agglomerates step to be separate from the step of withdrawing polymer powder from the reactor.

However, Bernier et al. (col. 39, claim 1) clearly claim a method of producing a polymer in a continuously operated gas phase reactor, polymerizing at least one

monomer in a bed containing active catalyst formed by catalyst and polymer particles suspended in a fluid (col. 39, line 25-33), and adjusting a discharge rate (continuously or intermittently) to withdraw polymer product from the reactor (col. 39, 40-42). Since the withdrawal of the polymer product also accompanied with the withdrawal of the fluidized recycle gas, the examiner has a reasonable basis that the claimed "adjusting a discharge rate of the polymer powder so as to maintain a constant bed level during polymerization" is met by Bernier et al. since Bernier et al. (col. 39, line 45-49) clearly indicate that the fluidized bed level is maintained by withdrawing recycle gas from the reactor.

Because the polymer product discharge rate of Bernier et al. can be conducted intermittently from the reactor, and that the agglomerate particles contents withdrawn from the fluidized bed reactor are time dependent, therefore, the examiner has a reasonable basis that the claimed "separately recovering particle agglomerates from the reactor" is inherently possessed in Bernier et al.

Regarding applicants' argument that the specification (page 11-12) contains comparative data to show the criticality of "separately recovering particle agglomerates" from the reactor", however, applicants fail to recognize that comparative data as written in applicants' specification do not indicate that the polymer particles and the particle agglomerates are separately recovered to overcome the rejection set forth. The comparative data (page 11-12) as written only show that polymer particles are

withdrawn intermittently where sometimes the particle agglomerates may vary depending on the different time of withdrawal. Therefore, the argued comparative data fail to overcome the rejection set forth.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

William K. Cheung, Ph. D.

Primary Examiner

October 2, 2006